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ABSTRACT

A team of U.S. business, labor, and public policy representatives visited Denmark, Germany, and Switzerland to investigate the European approach to preparing young people for the work force. It gathered information on the performance of governance and finance systems abroad and identified their key underlying principles and operations. Six common features were identified across the three countries and offered a sharp contrast to existing U.S. policies and practices: as a national policy, 16- to 20-year-olds in Europe are engaged in mainstream workplaces as both workers and learners; vocational education is industry driven through well-established systems; national frameworks developed through consensus of all partners provide strong direction to the vocational education system without federal bureaucracy; initial training, further training, and retraining are becoming increasingly integrated; the investment in vocational training for youth among the partners is high; and views of accountability and responsibility prevail that contrast significantly with U.S. attitudes. Nine compelling lessons were suggested for the United States: develop national frameworks; build industry-led institutions at the local level; determine the role of the community college; link school-to-work reform with educational restructuring; avoid tracking; think "system," not "program"; upgrade youth jobs; include workers in the process; and develop economic incentives for employers. (YLB)

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School-to-Work Transition in the U.S.: The Case of the Missing Social Partners

A joint project of the
Center for Learning and Competitiveness
and
The Greater Austin Chamber of Commerce

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The Center for Learning and Competitiveness (CLC) works with American practitioners and policymakers to apply the lessons from international education and training systems to policy development and system design in the United States. Improving the level of workforce preparation is a crucial component to improving productivity levels, boosting economic competitiveness and raising living standards. By helping US policymakers and practitioners understand the best practices and current trends in other countries, CLC helps to ensure that American innovation builds on the experience of others and attempts to achieve outcomes of the highest international standard.

CLC's activities provide access to the people and materials that illuminate the critical principles and components of high quality education and training systems. The range of activities include arranging targeted study programs of international systems, undertaking strategic consultancies for organizations or government departments, leading conferences and seminars in the United States, and publishing reports highlighting best practice and innovative methods for system reform. As part of CLC international study programs, American participants meet with their international colleagues and counterparts to examine the components and configurations of well-integrated education and training systems. They gain new perspectives as well as gather specific tools and information that will directly strengthen practice in the United States.

A priority for CLC's work is the dissemination of findings from international investigations to the education and training community, business and union leaders, politicians, journalists and other opinion leaders in the United States. CLC also works directly with state governments and with leading policy organizations to ensure their reform strategies are shaped and influenced by the experience of quality systems in other countries.

Learning from the international experience has already played an important role in building consensus and developing key leadership for nation-wide development of school-to-work transition systems, and in providing technical assistance in the establishment of these systems. A focus on the performance of international education and training systems enables the United States to learn from other policy successes, to avoid reform paths that have been unsuccessful and to ensure that our innovation will place us at the forefront of international best practice.

CLC was founded in 1992 with a three year grant from the German Marshall Fund of the United States (GMF). CLC's Executive Director, Anne Heald, created GMF's acclaimed Program on Improving U.S. Competitiveness, and has ten years of experience in running influential exchanges between the United States and Europe. The distinguished Advisory Board to CLC consists of leaders from American political, business, government and union sectors. The work of CLC is also supported by other foundations, state and federal governments. Support is also provided by the University of Maryland's School of Public Affairs, where CLC is based.

CE

School-to-Work Transition in the U.S.: The Case of the Missing Social Partners

A Report of the Governance and Finance Team of the Comparative Learning Teams Project

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A joint project of the
Center for Learning and Competitiveness
and
The Greater Austin Chamber of Commerce

PREFACE

In February 1993, CLC brought together 25 leading experts from state and federal organizations as well as international leaders, to identify the most pressing questions and problems that confront policymakers and practitioners working to build school-to-work transition systems in the United States. The outcome of that meeting was a consensus that there were five areas in need of immediate in-depth attention:

- Building a System: Governance and Finance
- Developing Standards, Assessment and Credentialing
- Building Partnerships: The Role of Economic Actors
- Designing Quality Programs
- Providing Career Guidance

To address these issues, and with the generous financial support of the German Marshall Fund of the United States, CLC initiated its Comparative Learning Teams Project. CLC issued a request for proposal nationwide, and respondents were asked to select one of these areas as the focus for an international learning investigation, developing levels of inquiry in substantial detail and with specific outcomes for their trip. The capacity of teams to effectively disseminate their findings in a way that would positively impact on the development of school-to-work systems in the United States was a key selection criteria.

CLC awarded grants to five organizations in the school-to-work transition field who led, planned and supported a Comparative Learning Team. The grants enabled each team of at least nine people to visit two European sites where sophisticated school-to-work transition systems operate. Each comparative learning team participated in carefully planned 12 to 14 day working sessions in Germany, Denmark, the United Kingdom, Switzerland and Sweden, where they gained direct access to their foreign counterparts and first-hand exposure to European systems.

The members of the learning teams consisted of leading resource people and experts who are catalysts for change in their field at local, state and national levels. Whether they were from the private sector, non-profit organizations or government, team members sought answers to the key strategic issues facing the development of quality school-to-work transition systems in the United States. Hosts in Europe commented on the clear focus of comparative learning team investigations around the pressing lessons of importance to American policymakers. A conference held in January 1994 allowed comparative learning team participants to discuss and refine their reports and findings, and to compare observations about international practice.

Already, the work of the comparative learning teams has had an impact on system-building in the United States. Team members were able to build on their European experience when designing state systems under the guidelines of the new Federal School-to-Work Opportunities Act. Officials in the Departments of Labor and Education, working on school-to-work policies, were briefed by one team member about the comparative learning teams project and team members' observations of European systems. Participants have spoken at numerous conferences, and published comments in newspapers and newsletters. Key findings of the teams are guiding further policy work around key issues such as the engagement of industry in school-to-work programs and in the design of skill standards.

CLC is now pleased to publish the five reports of the comparative learning teams. Each report highlights what the specific team found in their field of investigation, and particularly highlights the implications for American policymakers of European experience. We believe that they will be of equal interest to those who have examined the European models for workforce development previously and those who are being introduced for the first time to international expertise in this field.

For over a decade, American policy leaders have looked to Europe for insight into how to move young people effectively from school to the workforce, while providing them with relevant and valuable skills. The impressive achievements of European systems triggered much enthusiasm in this country about the potential positive impact of reform here. Many supporters of school-to-work reform in the United States first became excited about the potential impact of reform by looking at international best practice and some of the most innovative models of school-to-work transition grew out of exploring European sites.

Now, with the passage of the school-to-work legislation, and with states actively attempting to build school-to-work transition systems that will provide widespread opportunities for young people, the international experience remains highly significant. Issues that challenge American policymakers in building systems, such as developing appropriate funding mechanisms, engaging industry partnership and ensuring relevant standards, have long been at the core of investigation in Europe. Reform in European systems in recent years reflects current thinking about the delivery of quality school-to-work opportunities.

These reports are timely and relevant for American policymakers who not only want to look at the achievements of quality European school-to-work systems, but to explore in more detail the elements that enabled such systems to achieve quality outcomes. As states and sites move to implement comprehensive reform in the United States under the auspices of the School-to-Work Opportunities Act, all five reports will provide valuable information and insight into the best international lessons.

In releasing these reports, CLC would like to thank the German Marshall Fund of the United States for their generous support of the comparative learning teams project. We want to express our thanks to the lead organizations for the project: The Austin Chamber of Commerce, the New Standards Project, The Council of Chief State School Officers, the National Alliance of Business and the Northwest Regional Educational Laboratory.

In particular, we would like to thank the leaders of the five teams who generated such quality learning programs for their teams and led the process of developing these significant reports. To Bob Glover, Davis Jenkins, Glenda Partee, Esther Schaeffer and Larry McClure, our sincere thanks for your dedication and commitment to this valuable learning process.

Anne Heald
Executive Director
The Center for Learning and Competitiveness

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The team would like to thank Mark Scott for his able and diplomatic efforts to arrange the details of our itinerary despite the significant time pressures under which we were operating. With substantial assistance from Dr. Rudolf Natsch of the Bundesamt für Industrie, Gewerbe und Arbeit (BIGA) and from Jean-Pierre Meyland of the Conférence Suisse des Directors Cantonaux de l'Instruction Publique, Bob McPherson was able to arrange an excellent Switzerland itinerary on short notice. In Bonn, thanks are due to Dr. Hermann Schmidt and his staff at the BiBB. Dan Turnquist, Labor Attaché at the American Embassy in Bonn, gave us valuable help and suggestions. Manfred Göbel, special assistant to Dr. Wilfried Prevo, Chief Executive Officer of the Chamber of Industry and Commerce in Hannover, put together an outstanding program. In Berlin, our team had the able assistance of Dr. Karl Josef Uthmann and his staff at the BiBB. Hannelore Paulini was especially helpful in providing access to health care facilities. Samantha Guerry arranged our schedule in Denmark, with advice and counsel from Roland Osterlund and the assistance of his staff at the Ministry of Education and Research in Copenhagen and from Kirsten Tejsner and other staff of Århus Technical College.

Thanks are also due to the Greater Austin Chamber of Commerce for sponsoring our team. We especially thank Chamber President Glenn West for his sage advice and counsel and Sandy Dochen, Vice President for Education, Government and Community Affairs for his enthusiastic support and practical suggestions throughout the project and for handling our fiscal arrangements.

We appreciate the support from the Center for Learning and Competitiveness and the funding from the German Marshall Fund of the United States that made this study possible. Jeff King, the program officer at German Marshall Fund, joined us in Denmark and contributed to our discussions and perspectives.

Most of all, we owe a debt of gratitude to our European hosts and respondents. We cannot possibly thank the many individuals who generously gave of their time and energy to answer our numerous questions (in English!) and who made us feel comfortable and well fed. We much appreciate the efforts of numerous individuals in many places who helped us and we will carry fond memories of this trip for the rest of our lives. Special mention needs to be made of the exceptional reception we received in Koblenz, Austin's sister city, thanks to arrangements made by Berndt Grosser of the City of Koblenz and Karl-Jürgen Wilbert of the Handwerkskammer-Koblenz and their staffs. Our experience in Koblenz offers practical testimony to American readers of the great potential that sister city programs offer as excellent avenues to exchange and windows to global learning. Building on existing mechanisms of exchange, such as the sister city program—using a reciprocal approach so that everyone learns and gains—seems an ideal way to extend knowledge in this increasingly important arena of workforce development.

Finally, we remind the reader that any errors of commission or omission in this draft document remain our own mistakes and responsibilities—and are not attributable to any of our European colleagues. The views in this report are the findings and best professional judgment of the team members and does not necessarily represent the positions of the Greater Austin Chamber of Commerce or its Board of Directors.

EXECUTIVE SUMMARY

The engagement of private employers and worker organizations in the training of youth distinguishes the European approach to school-to-work transition. Across Germany, Switzerland and Denmark we witnessed the importance of the "social partners," i.e., the employers' associations and trade unions, which, in partnership with government and public education, manage and deliver training for youth. The partners set standards. They oversee the school-based training which complements the paid worksite learning that is the dominant component of training. And they shape and oversee the system of examinations that result in the certification of skills. This certification is recognized by employers throughout their nations, and increasingly, across Western Europe.

The contrast between American practices and what we saw in Europe is striking. In the U.S., there is no organized constituency of employers advocating for the level of skill training found in most apprenticeship programs. Americans continue to live and work in two different worlds—one of education, the other work. While they exist side by side, they hardly interact and there are few bridges between them, especially for youth not planning to continue their studies in college.

We are convinced that it is worth the effort, no matter how difficult it will be, to build institutions in the U.S. which will encourage and support similar engagement of industry in the governance and delivery of training for American youth. Our research was conducted with this institution-building goal in mind: what about the European systems could inform the policy development process in the U.S.? We decided that we had to better understand the relationships among the social partners before recommending policies which would help develop and guide needed institutions here. Who pays for training, both in school and at work? Who drives the system and assures that it maintains quality and responds to labor market needs? How do the different levels of government cooperate, both among themselves and with employers and worker organizations? How can we find ways to develop an American version of what are perhaps the two most stunning accomplishments of the European systems - their large scale and their systematic approach?

Although the training systems in Germany, Denmark and Switzerland vary in specific details and institutional characteristics, they share several important common features. First is the clear understanding that preparing young people for productive careers is the broad responsibility of all the social partners, with industry in the lead position. Americans assume that schools bear this responsibility almost entirely on their own. While European educators clearly have important roles, e.g., in developing curricula with industry collaboration and in devising instructional approaches, these are accomplished within a framework of standards set and recognized by industry. Such skill standards, along with industry-coordinated examinations, provide strong direction to the vocational education systems in Europe without federal bureaucracy. Also, the European systems of comprehensive written, oral and performance examinations offer a marked contrast to the usual American "seat time" approach to certifying young people as competent.

Second, Europeans accept teenagers as part of the mainstream workforce across most industries, both as workers and learners. Moreover, the initial training of youth and further training, and retraining of adults are becoming increasingly integrated into a single seamless system. While

American high school youths work in great numbers, most are concentrated in fast-food and retail-sales jobs which are disconnected from their education. In the U.S., youth labor markets and youth training (where it exists) are often isolated from adult labor markets and adult training.

Third, in Europe, the investment in vocational training for youth among the partners in aggregate is high. Despite the large sums involved, views of accountability and responsibility prevail in Europe which contrast significantly with attitudes in the U.S. Europeans tend to have a long-term orientation rather than a short-range return-on-investment mentality.

Our observations and studies in Europe have led us to reflect upon our American experience and to suggest nine compelling lessons for the United States:

1) Develop National Frameworks

While it is clear that local industry must drive the system to be effective, industry representatives will need a lot of guidance, especially at the beginning. U.S. industry simply has too little experience in designing and implementing structured work-based learning for youth and integrating it with school-based learning. Such guidance can come in part from the development of national skill standards which become the minimum requirements for local programs. The development of national skill standards and certifications is also important to assure portability and to weave together the open system proposed by the Clinton Administration which allows so much variety in its approaches to training (e.g., cooperative education, tech prep, career academies, etc.).

2) Build Industry-led Institutions at the Local Level

The United States needs self-governing, continuously-supported industry structures to administer work-based learning at the local level to provide effective quality control in training. In short, we need to devise American counterparts to the German Chambers or Swiss Associations and find ways to support them on a permanent basis. In all three countries we studied, public authority is used to raise the funds for the administration of school-to-work programs, but the private sector has the pre-eminent role in controlling the use of those funds.

Experience in all three countries indicates that "industry recognized" credentials granted by schools alone are insufficient for those completing training to attain credibility with employers. Industry needs to be an active partner in the assessment and the award of the credential. But industry must be organized locally or regionally to accomplish this effectively.

3) Determine the Role of the Community College

In addition to the ubiquitous involvement of industry in workplace learning, the three countries we visited have extensive, complementary systems of what they call "upper secondary" vocational training supported by government at all levels. Though by no means a uniform, national system, the closest thing we have in the U.S. is our community colleges and post-secondary technical schools. Community colleges are well-positioned to play a central role in the American school-to-work system envisioned in the Clinton initiative. But their involvement is also problematic.

Many community colleges in the U.S. already operate part of an American version of Germany's interfirm workshops. Community colleges and their facilities could be an important part of the

strategy to reach out to small businesses. Also, many currently offer continuing education or upgrade training to current workers, often through fee-for services or "contract" education. By becoming active in school-to-work transition, they could be in position to integrate initial training and advanced training.

4) Link School-to-Work Reform with Educational Restructuring

In the U.S., the separation of academic and vocational education at the high school level exists not only within schools—for students and teachers—but also in the local, state and federal agencies which shape education policy.

School-to-work transition is not a new program to be added to a list of education reform needs. It is an essential outcome for all students, and cannot be viewed separately from the schools' main purposes. The new focus on the role of high schools in preparing young people for the transition to work and professional life offers the opportunity to gain the public and political support needed for broader reforms.

5) Avoid Tracking

We are suspicious of any new system which is specifically geared toward non-college bound students. New efforts to reach this population should not be couched in "non-college bound" language, and ***must leave options open for college admission***, or they will face justifiable accusations of being a new form of tracking. Designing systems which keep college options open will not be easy. Some firms prefer to avoid investing resources in technical training for students whose real interest is getting into a baccalaureate college program. State university systems are likewise not very open to approving for admission, courses that have strong workplace and applied curricula.

6) Think "System", Not "Program"

There is an essential difference between designing a system and fashioning a program. A system begins with the level of the need for service and then finds resources and approaches to fill that need; in contrast, a program usually begins with resources available and then designs an intervention within the given resource constraints. The Europeans design systems; Americans set up programs.

This simple difference in starting point results in profound differences in perspective. It also yields substantially different results for youth. Indeed, it may be the most important lesson we learned in our travels.

7) Upgrade "Youth Jobs"

If America is to make use of jobs in traditional youth labor markets for learning, the quality of the learning experience must be upgraded. Means must be devised to have self-governing industry institutions pre-qualify firms to offer training. Schools, which to date have done little more than qualify worksites as "safe" and perhaps offer a one hour "work experience" class, will need to develop courses which complement upgraded workplace learning.

8) Include Workers in the Process

The value of direct worker involvement in both policy formation and implementation in Europe cannot be questioned. Indeed, front line worker participation is a cornerstone of the total quality management movement in the U.S. Yet determining the best ways to include worker voices in industry sectors without trade unions will be one of the great challenges in building new school-to-work systems here.

9) Develop Economic Incentives for Employers

It is clear that America will be unable to mount a permanent school-to-work effort at anywhere near a level that matches the needs of our youth simply on the basis of employer good will or community spirit, as a public relations gesture, or through moral persuasion. American employers must perceive improving school-to-work reform as being in their economic interests as well.

Ultimately, the costs of training can be born by only three parties—the government, the firm, or the individual trained (through a reduction in wages or payment of tuition). Currently, the debate over economic incentives revolves around whether or not the work component needs to be on a paid basis. There is an inherent conflict between our conviction that there will be no serious system for school-to-work transition without employer engagement, and our belief that employers in all industry sectors need to provide paid worksite learning experiences to youth. Incentives of some form will be required, both to help defer the cost of wages, and to build the needed local industry-led institutions which will guarantee quality.

The total numbers of students being served nationally to date is embarrassingly small. There is a role for federal leadership here—to encourage selected large companies with the necessary resources to create programs not for 15 or 20 youth apprentices, but for several hundred. At the same time, we should not forget that the government is a huge employer, and in many rural communities, the largest by far. Government agencies need quality entry level workers, and they too can invest in their training through new relationships with the high schools and community colleges.

In conclusion it is time to step back from the current policy debate and think seriously about creating the social partnership among education and industry which we feel is the glue of the European systems. Without the social partners at the table at all levels, state, federal and local, the school-to-work movement will be educator-driven, market-insensitive, and worst of all, not very engaging for the large proportion of youth who are bored in high school and who can see little relationship between what they do in school and the world outside.

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INTRODUCTION

Herbert Ringele is a "Meister" or tutor at the ABB plant in Baden Switzerland. He helps supervise the training of first and second year apprentices, most of whom are 16-19 years old, for this huge multi-national corporation which is headquartered in Switzerland and, through its many affiliates, employs nearly 250,000 people worldwide. In Baden, ABB not only operates its own training facility, but also runs an on-site, government-financed secondary school for 150 young apprentices preparing for energy and electronics-related careers.

The day we visited last September, Ringele met us at the train station and served as our host for the day. Like most of the workers at the plant, including current managers, he is a product of apprenticeship, and can't imagine a better way to prepare young people for productive jobs. As we were about to leave, he noticed the easel and butcher block paper he had used the day before when teaching a class to apprentices. Left from the lesson was a simple graph he had created, showing the distribution of apprentice opinions on two variables: the effort they put forth for their school work, and the effort expended in the practical, work-based segment of their training. The vertical bar representing schools showed all of the apprentices clustered at around 70 percent. For work effort, the same clustering existed, but at a much higher level—over 90 percent.

Heinz Ochsenbein is the Director of GIBB—a large vocational training school which offers classroom training for about 4,000 of the 24,000 youth apprentices (again, mostly in the age range of 16-19) in the canton of Bern who attend his school either one or one and a half days per week and spend the balance of their week as paid apprentices in hundreds of firms not large enough to offer the full "package" of training available at firms like ABB. His school also trains some 2,000 incumbent workers who receive further or more advanced training. Several hundred different instructors teach youth and adults alike, and three quarters of the instructors teach part-time while holding full-time or near full-time jobs in the industries about which they teach.

Dr. Ochsenbein, a historian by training, makes it clear that the use of part-time instructors for vocational education is a national policy, one which stresses praxisnah—the policy of keeping instruction "near the practice." He poses this rhetorical question: "Who better can teach young workers the theory which goes with the practice they get at work than people from the industry?"

Ole Myglegaard Anderson is the Vice President of a huge food industry training center in Roskilde, Denmark, less than an hour from Copenhagen, which serves nearly 14,000 students, and operates a slaughter house, a catering service, a restaurant and a small market. It is one of 120 such nationally supported commercial and technical training schools available to young Danes beginning around age 16. Though funded primarily by the national government of this nation of six million people, the Roskilde Slagteriskilen (literally "slaughter school") is run by

a board of directors dominated by the industry it serves. As with other such schools, the governing board has two local government representatives; all others are chosen by national trade committees from nominations made by local branches of the industry associations and trade unions.

In September 1993, we spent two weeks in Switzerland, Germany and Denmark examining how these Western European nations prepare their young people for the workforce, specifically youths who do not attend a university. In each country, we first obtained an orientation from officials at the national level and then visited local schools and training sites. In Switzerland, we viewed schools and training sites in the Germanic cantons of Bern and Zürich. In Germany, our nine-member group split into three teams to investigate local activities in Koblenz, Hannover, and Berlin. In Denmark, we visited schools and worksites in the Copenhagen area, in Roskilde, and in Århus. In order to obtain a common base of information across the three countries, wherever possible, we visited schools and training that focused on preparing youth for work in one of three industry sectors: electronics, health care, or hospitality.

Our investigations were part of a larger project sponsored by the Center for Learning and Competitiveness (CLC) and funded by the German Marshall Fund of the United States (GMF) which sent five different teams to learn from our Western European allies and to help inform the current policy discussions in Washington, D.C. and in the states about school-to-work transition. Our team focused attention on issues of governance and finance; subsequent teams examined skill standards, assessment, and credentialing; economic partnerships; developing quality programs; and career guidance.

We begin this report on our trip with the above three "stories from Europe" to illustrate the "industry-driven" nature of youth training there and to contrast it with the educator dominance of vocational training in the U.S. School-to-work transition occurs in Germany, in Denmark, and in Switzerland through a system of social partners: government, education, and industry (both through trade associations or chambers of commerce and trade unions). At all levels, national, regional or state, and local, industry—a combination of management and worker representatives—drives the system. They set the standards. In turn, these standards influence the school-based portion of the training which complements the paid work experience that is the essential, dominant component of training. The social partners shape and oversee the system of examinations which result in the certification of skills acquired. This certification is recognized by employers throughout their nations, and, increasingly across Western Europe. By contrast, vocational training in the U.S. is almost entirely a school-based enterprise, one plagued at the high school level by the low status that comes from being part of institutions geared primarily to help students meet the entrance requirements of four year colleges.

Our visit last fall was intended to gain insights into ways to develop an American version of what are perhaps the two most stunning accomplishments of the European systems—their large scale coverage and their systemic approach. We found the European systems are guided by three well accepted assumptions about preparing young people for productive careers: First, of course, is the clear understanding that education and training for work is the broad

responsibility of all the social partners, with industry in the lead position. In the U.S. we assume that schools bear this responsibility almost entirely on their own. Second, Europeans accept young people as part of the mainstream workforce, across most industries, both as workers and learners. In the U.S., high school youth are working in great numbers, but most are concentrated in fast food and retail sales jobs that offer little learning content or opportunities for skill acquisition and are disconnected from their education. Finally, standards, set and recognized by industry, along with industry coordinated comprehensive examinations, drive education and training in Europe in contrast to our "seat time" approach to certifying young people as competent.

The contrast between American practices and what we saw in Europe is striking. In the U.S., there is no organized constituency of employers advocating for the level of skill training found in most apprenticeship programs. We continue to live and work in two different worlds—one of education, the other work. While they exist side by side, they hardly interact and there are few bridges between them, especially for youth not planning to continue their studies in college.

We went to Europe knowing the strengths of their systems, and with the assumption that the training generally available there is far superior to that available to our youth who do not complete college. Visiting vocational schools in Switzerland and Denmark and interviewing apprentices and their industry trainers (*Meisters*) in Germany confirmed these assumptions.

Above all else, it is the engagement of private employers and worker organizations in the training of youth which distinguishes the European approach to school-to-work transition. In all three countries we witnessed the importance of the "social partners," i.e., the employers' associations and trade unions, which in partnership with government and public education, manage and deliver training for youth. We are convinced that it is worth the effort, no matter how difficult it will be, to build institutional structures in the U.S. which will encourage and support similar engagement of industry in the governance and delivery of training for American youth.

Our research was conducted with this institution-building goal in mind: what about the European systems could inform the policy development process in the U.S.? We decided that we had to better understand the relationships among the social partners before recommending policies which will help develop and guide needed institutions here. Who pays for training, both in school and at work? Who drives the system and assures that it maintains quality and responds to labor market needs? How do the different levels of government cooperate, both among themselves and with employers and worker organizations?

Our team was a collaboration of representatives from Texas, California, and Oregon—all of whom have been active in developing school-to-work opportunities both at the state level and in local communities. All three states have active initiatives underway to develop apprenticeships and career pathway programs for youth. While Texas, California, and Oregon are all at different stages of development, all three are working to improve workforce development under a common general framework outlined in the report of the Commission on Skills of the American Workforce, *America's Choice: high skills or low wages!* (1990). Our

team was a diverse group including a state administrator of apprenticeship, private sector representatives from firms in health care and electronics, a private training consultant, and university-based researchers.

We purposely visited three countries to gain better perspective on how governance and finance issues play out comparatively in a variety of institutional settings. Other CLT teams spent time in several other European countries as well, and returned with additional information on Sweden, England, and Scotland. Our team's goal was to gather information on the performance of governance and finance systems abroad and to identify their key underlying principles and operations in order to translate them into practical recommendations that could be implemented in American cities.

COMMON FEATURES ACROSS THE THREE COUNTRIES

The major observations about governing and financing vocational systems in Europe which follow, reflect some of the most important common features of all three countries and offer a sharp contrast to existing U.S. policies and practices.

1. As a national policy, 16-20 year olds in Europe are engaged in mainstream workplaces as both workers and learners.

Most American high school students work by their junior or senior year. Surveys indicate that more than half of our high school juniors and seniors work part-time during school, primarily in fast food and retail sales positions. These are jobs to provide income and for the most part are totally unrelated to school or their long term career goals.

In the countries we visited, 16-20 year olds who are not specifically preparing to go to university are engaged in the mainstream labor market, in most industries, as both workers and learners. All of the social partners agree that engaging young people not disposed to continue their academic studies is a crucial social and economic policy towards which substantial resources need to be invested both by the public and private sectors. Even in the present recession, with double digit unemployment in Germany and Denmark and an unprecedented 5% unemployment rate in Switzerland, support for putting young people to work as part of their training for a productive career is strong. "We can't have our youth hanging around on the corners," we heard repeatedly in all three countries. Business leaders were as likely to say this as were educators.

All of the countries focus on the estimated numbers of upcoming students leaving school who will need an apprenticeship. The number of school leavers needing an apprenticeship is a relatively easy number to calculate because demographic information and school enrollments are easily obtained. Efforts and initiatives are then taken to assure that sufficient numbers of training places are available for them—all of them, not just the best. Having more than enough apprenticeships available helps assure that disadvantaged youth are served.

Our counterpart approach in America is to ignore the big picture and focus on the details. We don't even bother calculating how many training slots may be needed. Rather Americans start with how much money may be available (usually special purpose monies from a government source) and design a program within the funding limitations that typically serves only a minuscule portion of the total who need it.

Providing sufficient training places to accommodate all youth who need them is not an easy task. As an employment-based training system, apprenticeship requires jobs to be available to offer training. In the face of a declining economy and a rising youth population, this can be a challenging task. Yet all of the countries have been reasonably successful in keeping

apprentices working during adverse economic times. Government routinely intervenes, usually with support from the social partners, to create subsidies if needed to assure adequate numbers of training slots in industry.

Despite current economic problems, the commitment to keeping young people engaged both in school and work during the crucial transition years continues. In both Germany and Switzerland, representatives of the larger firms testified that they would lay off experienced workers before cutting apprentices, if confronted with the choice. Faced with insufficient apprenticeship openings in Denmark and in eastern Germany, the two nations have demonstrated the willingness to raise employer incentives to participate by introducing wage subsidy schemes. Such schemes would stand little chance of implementation in the U.S. and point out what is really a cultural difference in the importance that society places on training youth during the transition years.

2. Vocational education is industry-driven through well established systems.

This aspect of European training for youth is not easily grasped by those who have not witnessed it first hand. It is in stark contrast to the American way of delivering vocational training at the secondary school level which is, as we have already pointed out, educator driven. It occurs only because all of the countries we studied have institutions in place which represent the social partners—industry and workers. The actual form of these varies. For example, Germany has a national system of four types of industry Chambers—Chambers of Industry and Commerce which serve larger firms, Chambers of Small and Medium Sized Firms and Crafts, Chambers of Agriculture, and Chambers in the Professions. National law requires every firm to be a member of a Chamber (except in the professions). Thus membership includes virtually all firms.

For example, the Hannover Chamber of Industry and Commerce, the seventh largest in Germany, has some 86,000 members, who pay dues and fees to support the Chamber's work. Much of what the Chambers do is consistent with the roles of Chambers of Commerce in the U.S., such as government relations and economic development activities. German Chambers also undertake a variety of activities aimed at improving the competitiveness of their member firms, such as technology diffusion and export assistance. All Chambers have staff devoted to training, both initial training (apprenticeship) and further (advanced) training. In the case of the Hannover Chamber, 36 of its 210 staff members—about 15 percent—work exclusively on the development and oversight of apprenticeships.

Thus German apprenticeship is not administered on an isolated basis. Through its local governance structure, apprenticeship is connected to a broader context of competitiveness and related to such activities as technology diffusion and training of other workers. Such a setting offers significant advantages both in terms of keeping training relevant and current and in obtaining the support and participation of firms in apprenticeship.

Switzerland has no mandatory membership requirements for employer organizations, yet most employers do belong. These employer organizations, literally hundreds of them even in a

country of only six million people, are organized much like the German chambers. Examples include The Association of Cantonal Banks, The Swiss Metalworks and Watchmakers Association and The Swiss Commercial Association. The associations have their own national "association of associations" which represents business interests with the Parliament, including apprenticeship policy development and oversight.

In Denmark, firms and unions within an industry sector are represented on national trade committees, which have counterparts at the local level. Representatives for the trade committees are nominated by industry organizations and trade unions. Although membership in these organizations is also voluntary, participation is high. The national committees develop "goals and frameworks" for each occupation which are promulgated by the Ministry of Education to provide minimum standards for training. The national trade committees also certify the suitability of firms to offer training, assuring that training firms have staff qualified to conduct training, have up-to-date work processes and equipment, and can offer the full range of skills in the proposed occupational area. Finally, the trade committees select judges from industry to administer the examinations to completing apprentices and they certify the skills of those who pass.

In all three countries, trade union organizations have staff dedicated to apprenticeship. At the national level, these associations come together in large federations, parallel in some ways to our national AFL-CIO. The national labor federations, such as the LO in Denmark, consider their policy role in vocational training as essential to protecting apprentices' rights, and assuring quality training opportunities, even though apprentices are not formal union members. Indeed, we heard a great deal from union representatives about their efforts to assure that apprentices are broadly trained and not channeled too quickly into a specific occupation.

In Europe, apprenticeship is for young people who are integrated into the normal working processes of the firm beginning as early as age 16. Their education is considered the joint responsibility of all the social partners. In all three countries, students have written contracts with their employers who are ultimately responsible for their success or failure. Employers train youth with the understanding that they may or may not end up working for their particular firm. But the availability of apprenticeships in various industries and occupations is driven to a large extent by market forces, not the availability of certified vocational teachers as is too often the case in the U.S.

The entire system is quite complex, involving frequent meetings of the social partners at all levels—national, regional or state, and local. Changing long standing policies amidst this complexity is challenging, but we were assured that the process leads to consensus and keeps the training system fluid and current. As a labor leader in Switzerland told us, "Sure, we have lots of disputes and differences of opinion among the social partners. But we have the forums to get together and make a consensus, and that's what we do." Evidently they continue to meet until consensus is reached.

3. National frameworks developed through consensus of all the partners provide strong direction to the vocational education system without federal bureaucracy.

Germany, Denmark, and Switzerland establish skill standards which become guidelines for implementation by industry groups and schools nationwide. All three countries organize the social partners to develop national frameworks for each occupation which set minimum standards for the training. In Germany, national skill standards include an outline of the curriculum, indicating the breadth of coverage and sequence of study, as well as a framework for assessment in the interim and final exams. In Germany, the Federal Institute for Vocational Training (Bundesinstitut für Berufsbildung or BiBB) administers a process for bringing the social partners together to develop consensus on the standards for each apprenticeable occupation in national ordinances. Once consensus is reached, the national ordinances are promulgated by the Ministry of Economics or other relevant government ministry. The standards developed effectively become a national framework within which all sponsors must function.

Similarly, in Denmark, the Ministry of Education publishes a set of standards for each occupational cluster, called "aims and frameworks" that is more abbreviated than German skill standards. These aims and frameworks are developed by the Trade Committees in each cluster. Even in Switzerland, which has the most decentralized system of any of the countries studied, skill certification standards are developed nationally, thus fostering portability across the country. Education in Switzerland is highly decentralized with no federal ministry of education. But the national government, through the federal Office for Industry and Labor, plays the crucial role of organizing industry consensus regarding continual revisions in national skill standards which are highly respected at the cantonal and local level and drive training content and methods. Changing these standards is a complex and time-consuming process, but once changed, the entire vocational training system responds.

Within the guidelines provided by these national standards or frameworks, local schools and industry have considerable flexibility in designing and delivering instruction.

4. Initial training, further training, and retraining are becoming increasingly integrated.

Across Germany, initial training and "further" training, i.e., advanced training beyond apprenticeship, are becoming increasingly connected. Germany has a significant advantage in that the same entities—the chambers—administer both initial training and further training. Practically everywhere in Germany, one sees young adults taking classes together with teenage apprentices. Some of these individuals have completed apprenticeships in another field and have returned for retraining. Some are displaced workers. Others have never completed an apprenticeship and have been unemployed.

Perhaps even more important, interfirm workshops are increasingly used as sites for further training. Short courses for adult workers often are provided in the evenings or on weekends. *Meister* training is also conducted for a fee, usually paid by the individual being trained.

Swiss vocational schools offer initial training to apprentices and higher level training for existing workers, with the instruction often coming from the same teachers. At the SDK Gewerbeschule in Bern, some 5,000 apprentices across many occupations receive one day per week of training, and 2,000 incumbent workers attend training part-time to improve their skills. The in-school portion of apprentice training is paid entirely by government: 10 percent from the City of Bern, 25 percent by other local communities which send students, 35 percent by the canton, and 30 percent by the national government. Both the cantonal and national governments also subsidize the further training of incumbent workers but there is no local contribution; the employers and/or employees make up the difference through tuition payments. Of the 800 teachers at the SDK Gewerbeschule, only 150 are full-time. The balance teach part-time and most of them hold jobs with firms. This arrangement provides a built-in mechanism to assure that current industry practices are used in school-based vocational training.

Connecting initial training with further training offers several advantages. It reduces the fragmentation so characteristic of our American training "system." Mixed use training facilities are more efficient and justify the high costs of current equipment. Secondly, among the aims of further training is keeping workers abreast of leading-edge technology. Thus, requests for further training courses can often provide an early alert to apprenticeship administrators about the changing skill requirements brought by technological advances. Familiarity with coming technological changes better positions administrators and teachers to incorporate new technologies into the initial training system.

In Denmark, the picture is more complex. Basic vocational preparation for youth is administered by the Ministry of Education which operates through the technical and commercial colleges. These colleges concentrate on providing long term basic vocational training for craft and other skilled occupations. In competition on the marketplace with private vendors, the colleges also offer tailor-made training paid for by local enterprises, as well as some further training for skilled workers. To date, few Danish firms are purchasing such courses, allegedly because Danish businesses view the colleges as government institutions and they are used to government paying for training. However, Danish Colleges are encountering increasing success in marketing their services worldwide.

5. The investment in vocational training for youth among the partners in aggregate is high.

High quality vocational preparation is not cheap. In Germany, a commonly cited annual investment in apprenticeship is 40 billion DM. Dividing the total among the 1,665,500 apprentices registered in 1991 comes to a gross expense of over 24,000 DM (or about $15,000) per apprentice. Of course, these figures do not take into account the contribution apprentices make to production in the firms. Also, this is a national average; costs vary significantly by occupation and by firm. Most of the costs are in the wages paid to apprentices and in the costs of instruction and supervision of apprentices on the job. Eighty-five percent of the investment is financed by firms; only an estimated 15 percent is paid by governmental sources. Even the part-time schools for apprentices (*Berufsschulen*) are well

financed. Costs vary by trade here as well; for example, in Hannover, annual average per apprentice costs amounted to over $5,000 for commercial trades and nearly $7,000 for construction trades.

In Switzerland, our team found it impossible to obtain accurate data on the costs of training apprentices. They know they spend a lot on training from a variety of sources, but total costs are not carefully documented. This lack of concern for the cost is further evidence of their fundamental commitment to training. It is simply not an important issue with them and our repeated questions in this area seemed to frustrate them.

Of course, costs are much greater in more technically oriented training such as that observed at ABB. It is also important to note that the Swiss spend considerable sums on all levels of pre-university education, as reflected in very high teaching salaries—about $75,000 on average, compared to the earnings of American teachers.[1]

The Danes are alleged to have the most expensive vocational training systems in the world, but they claim this distinction belongs to their Scandinavian neighbors. They point out that whatever the costs, public expenditures are far less than alternative educational paths, especially university education. In 1990, Denmark spent 6 billion DKK on 65,000 full-time vocational education students and 100,000 part-time students, or a total of just over $11,000 per full time equivalent. At the Roskilde vocational school we visited, we estimated that the school spent more than $4,000 per student during the approximately 15 weeks of instruction per year, or an average of $12,000 per annual full time equivalent student. Costs vary significantly by the course of study. For some advanced training, the actual costs were as much as double; for beginning study, costs were substantially less.

6. View of accountability and responsibility prevail in Europe which contrast significantly with attitudes in the U.S.

As much as these countries spend on training, they do not track the sums or outcomes very carefully. In short, they don't have a short term "return on investment" mentality. There is widespread recognition that the payoff to investing in apprenticeship is ***long term***; thus firms do not look for a return on their investment in their next quarterly statement. In fact, information on costs is more easily obtained than benefits, and firms don't generally analyze the return on investments in apprentices. One owner of a small German manufacturing firm explained he knew precisely what his costs were, but the benefits were more difficult to specify, in part because they occur over the medium or long term.

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[1]According to the most recent data available on the annual salaries of American vocational teachers, the mean average in 1987-88 was $26,234 at the secondary level and $30,953 for full-time faculty in 2-year postsecondary institutions. See National Center for Education Statistics, *Vocational Education in the United States: 1969-1990.* Washington, D.C.: U.S. Government Printing Office, April 1992, p. 67 and p. 129. Of course, differences in the cost of living and in the time periods considered must be factored into these comparisons between the U.S. and Switzerland.

Moreover, the burden of justifying the system is not there. It's already well embedded in the core values of the society. It simply doesn't have to be defended.

While German firms generally seem to have a long-term rather than short-run orientation, this is not the only explanation for the apparent lack of return on investment mentality toward apprenticeship. Other contributing factors are at work here, too. Labor-management relations tend to be collaborative rather than adversarial as they are in America. The parties have notably greater trust in one another than found in the U.S. After all, consensus mechanisms put the partners in continual contact with each other. Trust has been built in these relationships. One indicator of this environment of trust is that before any proposal related to apprenticeship is introduced in the German or Swiss parliaments, all social partners are given an opportunity to review and comment. Moreover, government is perceived as a competent partner. Thus there is less need felt to focus on monitoring numerous specific performance indicators.

About halfway through our visit in Germany, one of our team members observed that the Germans seemed to give a lot of care and attention to the design of inputs (e.g., developing skill standards in national ordinances, pre-qualifying firms to offer training, selecting apprentices, training *Meisters*, etc.) and then place their confidence in these measures to control the quality of training in the system.

On closer inspection, we found that the Germans do a much better job of measuring at least one output we commonly ignore: skills gained. Industry plays the major role in assessing and certifying the skills of completing apprentices. The skill certifications are conferred by industry through the Chambers. Thousands of industry volunteers serve in the prestigious position of examiners. Examination panels are composed of equal numbers of management and worker representatives, along with a teacher. This personal contact with the assessment of apprentices provides industry representatives with direct knowledge of the skills that apprenticeship is producing.

Another background factor influencing the European approach to accountability is a greater emphasis on collective responsibility. For example, if an apprentice fails his or her final examination, it is generally considered the fault of the system rather than the individual apprentice. Ultimately the sponsoring firm bears responsibility for training the apprentice to standards. In extreme cases, an apprentice can sue an employer for failing to train him or her properly but before going to the labor courts, the apprentice must first exhaust the due process procedures available at the firm and through the chamber.

Nevertheless, failures are unusual. Despite the fact that the final exams are difficult, about 90 percent of completing apprentices pass them. What accounts for such high success rates? These countries have high expectations for all students and most students rise to the standards. In addition, the system is geared for success. As an example, apprentices in Germany are given an interim examination midway through their apprenticeships. However, this exam is not used for rating, ranking, or sorting, nor is it even a threshold that must be passed by the

apprentice. Rather the whole purpose is diagnosis—it gives an early alert to call attention to problems that apprentices may be having so that they can be addressed during the remaining portion of the apprenticeship.

Under the European approach to accountability, the national government articulates a broad vision. For example, the nation determines how many training places will be needed—and then adopts strategies to produce that number. Most remarkable to American eyes, European employers hire apprentices without any assurance that they will be able to retain those they train.

In Germany, roughly two-thirds of apprentices remain with the company that trained them after completing their apprenticeship, but most leave the firm within five years. Danish firms keep only a few of their very best apprentices as permanent employees. Most Danish employers expect youths to leave their employment at the end their apprenticeship. Indeed, completing apprentices are encouraged to travel and to broaden their experience base by working for other firms in the industry. As a conventional practice, many Danish firms will keep apprentices employed only for three months beyond their apprenticeships. In this way, apprentices are not preoccupied with finding their next job during the final learning period. Moreover, the three months of employment makes them eligible to collect unemployment insurance if they require it, based on a higher post-apprenticeship wage.

Why do firms invest training dollars in teenagers they are likely to lose? The reasons are several and complex. It is considered an investment in the future as well as the firm's economic and social responsibility. As several employers explained:

> "Are teenagers more risky or more trouble? No and yes. They have different problems from other employees, but they are small problems—such as girlfriend/boyfriend problems. We can have a real influence on youth at this age. When you tell them to do something, they do it!"
>
> "We can be more influential than schools or even parents."
>
> "We can buy older workers on the market but then we have to train them too—for a year or longer."
>
> "Trained youth are better off than untrained youth, regardless of their current employment situation."

What explains the high participation rate of employers in offering training, given the obvious costs in doing so? The full answer to this question has several dimensions.

First, history and tradition must be considered. At least in the Germanic nations, the ties to early guild training have been maintained over the centuries. Roland Osterlund of the Danish vocational education ministry likes to tell the story of the major expansion of apprenticeship under an early monarch: "The King simply decreed that each employer with one apprentice hire two, and each with no apprentice hire one."

There is also the strong belief by industry that schools alone cannot do the job. Schools are always inherently behind industry and thus industry must drive training to stay current. At the same time, commitment to praxisnah —keeping training near practice—is more generally accepted. Most people learn best in situations where learning can be directly applied to practice. The U.S. is less convinced of the value of work-based learning—an issue which the School-to-Work Opportunities Act attempts to address.

Another benefit for industry is that by paying for and thus owning training, government interferes less. At the same time, the payments do yield some direct benefit in the form of productivity. Indeed, in a few industries, apprentices are a major source of labor. At the Inter-Continental Hotel we visited in Hannover, fully 40 percent of all employees were under contract as apprentices. The hotel manager admitted that he could not operate as efficiently without the relatively low paid apprentices.

In Switzerland and Denmark, we repeatedly heard two refrains: that the society cannot afford to have disaffected youth, and that in nations with few natural resources, investments in human capital are essential to economic well-being. The notion of the social partnership between industry and government moves firms to believe that they have both the responsibility and leverage to keep young people off of the street corners and thus they participate in training.

Finally, in a nation such as the U.S. in which few firms train, the "free rider" problem can be significant. Firms who do not train simply can bid away the skilled workers trained by their competitors. But in Germany, Denmark, or Switzerland, where many companies are engaged in training, the moves tend to cancel out—or it doesn't seem to be an issue because firms have a broader perspective. For the U.S., the free rider problem presents a special challenge until we can reach a critical mass of firms willing to train.

IMPLICATIONS FOR THE UNITED STATES

We are left with the following lessons from our travel and study which we believe should be key considerations as the U.S. continues to move towards a national strategy for school-to-work transition. The issues raised here address both policy issues and implementation considerations. Legislation alone, no matter how carefully crafted, cannot overcome the numerous obstacles to creating the systems which need to be developed. We state these as recommendations for action at all levels of government, within industry, and at educational institutions.

Develop National Frameworks

While it is clear that local industry must drive the system to be effective, industry representatives will need a lot of guidance, especially at the beginning. U.S. industry simply has too little experience in designing and implementing work-based learning and integrating it with school-based learning. Such guidance can come in part from the development of national skill standards which become the minimum requirements for local programs. The development of national skill standards and certifications also is important to assure portability and to weave together the open system proposed by the Clinton Administration which allows so much variety in its approaches to training (e.g., cooperative education, tech prep, career academies, etc.). The example of Switzerland which uses the same procedures for national assessment and certification regardless of whether the training is school-based or work-based—may offer lessons here.

Under the Clinton Administration's proposals, national skill standards will be developed through industry consensus under the National Skill Standards Board established under the "Goals 2000: Educate America Act," now passed by Congress. But due to technical challenges and the political difficulties in building consensus across an industry, skill standards and assessments likely will take several years to develop and be put into place. Unfortunately, for most industries they will not be available at the beginning when they are most needed to guide the system.

In anticipation of the development of a system of national skill standards, assessments and certifications, it is worthwhile to examine more closely the standard setting operations of the BiBB, the federal agency responsible for apprenticeship in Germany. The BiBB offers an important model for the United States. It shapes the entire national system, yet functions without a huge federal staff or budget. For under $30 million annually, the federal Ministry is able to directly shape what happens with in-firm training, as well as the broad content of examinations, while strongly influencing the format and content of the curriculum in both firms and schools.

It is difficult to envision an organization in the United States that could exercise authority like the BiBB. The effectiveness of such an organization with representatives of all states is dubious. A federal government agency appears highly unlikely to gain the acceptance of other social partners necessary to exercise the influence seen in Germany.

However, there could be advantages for the US to have a central mechanism for the development of skill standards and curriculum frameworks for use in vocational education, and to make such curriculum available for state systems and individual programs. Such a process would result in the national government working directly with industry, labor and educators to develop in-firm training guidelines that could be used or adapted by state systems and local programs. Key industry organizations may appreciate having training guidelines that are developed nationally, rather than a series of unconnected and uncoordinated local standards. The BiBB serves as an important model for demonstrating how this can be accomplished with a relatively small investment. It is appropriate for a new, modestly funded national organization to serve as a mechanism for direct communication and consultation between key industry groups and the national government on vocational training issues.

Build Industry-led Institutions at the Local Level

The United States needs self-governing, continuously supported industry structures to administer work-based learning at the local level and operate as an effective means to provide quality control in the training. In short, we need to devise American counterparts to the German Chambers or Swiss Associations and find ways to support them on a permanent basis. In all three countries we studied, public authority is used to raise the funds for the administration of school-to-work programs, but the private sector has the pre-eminent role in controlling the use of those funds. Each country accomplishes this in a different way. Germany requires firms to join a Chamber, which charges dues and fees and uses the proceeds in part to pay for development of training. In Denmark, most of the funding is provided from the national government allocated through a network of technical and commercial colleges, yet the social partners have a dominant influence on the system. Likewise in Switzerland, despite large scale public investments in training, private industry has the dominant voice in determining how those funds are spent.

In the United States, similar local entities could be partially funded through a combination of revenue mechanisms such as proceeds from tax abatements, through tax reduction schemes which divert a portion of the reduced taxes into a dedicated training fund, or grants from state and federal governments. Funding from foundations can provide helpful seed monies for a few pilot sites to start the system, but would not offer a continuing source of revenue.

These entities need to be organized by industry group as well as by geographic area. Existing trade associations, chambers, business/education groups, trade unions, and related organizations should be the foundation upon which such a new system is constructed. The federal government, with possible help from private foundations, should foster their participation in a new and much expanded apprenticeship and training system.

Under the School-to-Work Opportunities Act, such local entities are to be formed as "partnerships" between employers, secondary and postsecondary educators, and employee representatives, together with community organizations, local governments, nonprofit organizations, rehabilitation agencies, etc. This participation by a variety of parties beyond business is likely to dilute the industry voice which is already very fragile. As a remedy,

some way should be devised to establish the industry boards separately and independently and then integrate them with other groups in the community partnership.

Experience in all three countries indicates that "industry recognized" credentials granted by schools alone are insufficient for those completing training to attain credibility with employers. Industry needs to be an active partner in the assessment and the award of the credential. But industry must be organized locally or regionally to accomplish this effectively.

Determine the Role for Community Colleges

In addition to the ubiquitous involvement of industry in workplace learning, the three countries we visited have extensive, complementary systems of what they call "upper secondary" vocational training supported by government at all levels. Though by no means a uniform, national system, the closest thing we have in the U.S. is our community colleges and post-secondary technical schools. Community colleges are well positioned to play a central role in the American school-to-work system envisioned in the Clinton initiative. But their involvement is also problematic.

Many community colleges in the U.S. already operate part of an American version of Germany's interfirm workshops. Community colleges and their facilities could be an important part of the strategy to reach out to small business. Also, many currently offer continuing education or upgrade training to current workers, often through fee-for services or "contract" education. By becoming active in school-to-work transition, they could be in position to integrate initial training and advanced training.

American community colleges already hire many part-time teachers; but often they do so in order to obtain a less expensive teaching force—rather than to maintain contact with current industry practices. As the European experience demonstrates, hiring well qualified, part-time teachers from the industry being served can help assure keeping education current with industry practices. Teacher internships in industry also can help accomplish this objective.

Perhaps the most important stumbling block is that American community colleges do not have much experience with work-based learning, nor do many in the academic community even value it. Surveys of budding tech prep programs, the community colleges' major effort to link up with high schools, show very few with a serious workplace learning component. Many American community colleges have developed non-degree, customized training, yet the knowledge and experience gained and the customer orientation and responsiveness to industry needs required rarely carries over to the academic side of the school. In addition, completion rates by community college students are quite low. The incentives in the funding structure for community colleges favor emphasizing enrollments over program quality, completion, or transition to employment.

In many ways, America's community college systems are at a crossroads, and most are seriously examining their mission in light of changing demographics, funding mechanisms and concern with global competitiveness. They must be included in significant ways in the debate

on school-to-work transition. They represent more than just one of the partners in the debate. The dialogue with the community and technical colleges, at the national level, through their associations, as well as at the state and local levels, must begin in earnest now.

Link School-to-Work Reform with Education Restructuring

In the U.S., the separation of academic and vocational education at the high school level exists not only within schools—for students and teachers—but also in the local, state and federal agencies which shape education policy. Will this separation continue, or will the new national emphasis on school-to-work transition proposed by the Clinton Administration be part of a broader high school restructuring effort?

Among education policy analysts and policy makers, a consensus has grown in the past decade about what is wrong with America's schools and, to a lesser extent, what remedies are required. The work of the Ted Sizer, John Goodlad, the National Governor's Association, the Education Commission of the States and others has common reform elements including: the need to actively engage students in their learning, challenging students to become problem solvers, shifting authority to the school level, much more actively engaging the community in schools, and shifting the accountability focus from procedures to performance.

How do these tenets of restructuring relate to efforts to improve school-to-work transition? The new focus on preparation for work can help drive the needed restructuring of high schools, and in fact may offer the greatest promise for serious change. "Active" learning in the classroom means different things to different people, but most can understand active learning at the work site. The significant employer role in the education of students over the age of 16 implied in the School-to-Work Opportunities Act would have an enormous impact on high schools if implemented well. It would open our schools to the needed scrutiny by the broader community, which in turn would help promote needed changes in accountability measures.

At this very early stage of implementation, the federal initiative has come to be called "school-to-work"—a new buzz word and an effort which the bureaucracies at the federal and state level will inevitably try to compartmentalize. In some of our own states, we see this occurring already, with vocational education taking the lead and limited attention coming from the broader state-level education policy makers.

School-to-work transition is not a new program to be added to the list of education reform needs. It is an essential outcome for all students, and cannot be viewed separately from the schools' main purposes. A new focus on the role of high schools in preparing young people for the transition to work and professional life, offers the opportunity to gain the public and political support needed for broader reforms.

Avoid Tracking

Something we often hear when we speak with enthusiasm about the training system for youth in Europe is "Well, that sounds fine, but they track kids at an early age there, and this will never be acceptable in the U.S." Indeed, we saw plenty of evidence of such early tracking, especially in Germany. Our concerns were magnified by the equity issues for non-Germans in education and the Dual System that came to our attention as the trip proceeded.

At the end of primary school, on the basis of tested performance, the German education system sorts its students into three types of high schools: *Hauptschule* (4 years), *Realschule* (4 years), and *Gymnasium* (6 years). This system applies to most German youth. Thus by the age of 10 or 12, one has to make a major decision that strongly affects ones life's chances. The fact that decisions must be made at a relatively early age puts the burden primarily on parents and schools, not the students themselves. Social mobility becomes all the more difficult.

But tracking is a complex issue. At the outset, it should be acknowledged that many American schools track kids implicitly from first grade onward. In fact, many first grade teachers brag that they can tell which kids in a class will drop out and which will go to college. The Germans ***do not*** track until secondary school which is better than doing it from first grade on.

The fact that the Germans track ***explicitly*** makes it easier to remedy. Increasingly, children and parents can override the decision of the school and jump their children to other levels of school; but the children must do well in school to stay in the higher tracks.

But apart from these differences between the U.S. and Europe in views towards tracking, another phenomenon exists in the U.S. which should drive thinking about tracking. At the many local meetings which we attend aimed at promoting new systems of school-to-work transition in American communities, we find most people agree on the need to replace our current high school vocational programs with something much better and fairer. Local groups are good at designing the components of such new systems. But at the end of these discussions, after coming up with an ideal design of programs "for students not going directly to four year colleges," we often ask this question: Who among you would rather have your own child in a career academy or tech prep or youth apprenticeship program as an alternative to being in the college prep curriculum? Few hands go up. Even a much better designed alternative to college prep, one encompassing the features advocated in the School-to-Work Opportunities Act, will be a program for someone else's child. This is true of parents from upper middle class suburbs and parents from poor, inner city communities.

We are, in short, suspicious of any new system which is specifically geared toward non-college bound students. New efforts to reach this population should not be couched in "non-college bound" language, and ***must leave options open for college admission***, or they will face justifiable accusations of being a new form of tracking. Designing systems which keep college options open will not be easy. Industry is not interested in investing resources in

training for students whose real interest is getting into college. State university systems are likewise not very open to approving admission courses which have strong workplace and applied curriculum.

But it can be done. Many of the career academies in California, which to date have been established primarily in lower income, urban areas, have strong track records in preparing youth both for technical jobs and for college. The U.S. system of school-to-work transition will necessarily differ from European systems in its commitment to keeping options open for students who complete their training.

Think "system", not "program"

At the beginning of this report, we noted that the two most impressive achievements of the Europeans were the large scale of the programs, offering excellent training opportunities to a majority of youth (or more!) who leave school, and the systemic approach used by the Europeans.

There is an essential difference between designing a system and fashioning a program. A system begins with the level of the need for service and then finds resources and approaches to fill that need; in contrast, a program usually begins with resources available and then designs an intervention within the given resource constraints. The Europeans design systems; Americans set up programs.

Many of the places and people we visited had been visited by scores of Americans before us and they had well-organized presentations, including overhead slides. (For example, nearly every group in Denmark had the same set of excellent English-language color slides to explain how they operate their "system" of training.) The first slide nearly always concerns the upcoming demographic picture. The key starting point for the Europeans is how many youth leaving school will need an apprenticeship. Then they organize a campaign to develop sufficient numbers of training positions to accommodate that number. Americans usually begin with resources ("How much is available through that request for proposal?) and then design a program.

This simple difference in starting point results in profound differences in perspective. It also yields substantially different results for youth. Indeed, it may be the most important lesson we learned in our travels.

Costing out a system that meets the scale of needs of school-leaving youth is an important first step for any community to take. Austin, Texas has recently begun such a process and it is proving to be a sobering experience. Such an analysis makes clear how much needs to be accomplished. It also surfaces what appear to be enormous costs—until one puts them into perspective or context 1) by comparing them to what we already are spending on fragmented and piecemeal ineffectual efforts to develop the American workforce, and 2) by comparing

them to our total expenditures on prisons, income maintenance programs, and the social services required to ameliorate problems caused by the lack of quality systems to prepare the non-college bound for productive work.

Upgrade "Youth Jobs"

European apprentices are found in many service jobs in restaurants, retail shops, and hotels—the same sort of establishments where American high school students now work. The chief difference between America and Europe here is the learning content of these jobs. Learning is more greatly emphasized in Europe. They offer job environments designed for learning, provided by a firm certified by the industry as qualified to train apprentices.

If America is to make use of jobs in traditional youth labor markets for learning, the quality of the learning experience must be upgraded. Means must be devised to have self-governing industry institutions pre-qualify firms to offer training. Schools, which to date have done little more than qualify worksites as "safe" and perhaps offer a one hour "work experience" class, will need to develop courses which complement upgrade workplace learning. Waiter apprentices in Germany and Denmark learn about nutrition, accounting and marketing, as well balancing plates on their arms.

Through foundation support, and the willing cooperation of huge fast food chains, some progress is already being made. Several states, including the three represented on our trip, are targeting "hospitality and tourism" as key areas to develop new youth apprenticeships. Standards in the hospitality industry are already being developed at the national level. All of these efforts deserve further support.

Develop Economic Incentives for Employers

It is clear that America will be unable to mount a permanent school-to-work effort at anywhere near a level that matches the needs of our forgotten half of youth simply on the basis of employer good will or community spirit, or as a public relations gesture, or through moral suasion. American employers must perceive improving school-to-work reform as being in their economic interests as well. Given the short run orientation of most American firms, this will not be easily achieved without financial incentives offered by government.

Most Europeans have a strong distaste for subsidizing employers to train apprentices. For example, European employers fear that subsidies may lead to greater intervention and encroachment on what is viewed as private sector decisions. Yet most countries resort to subsidies (usually on a temporary basis) when hard pressed to provide training slots, such as in the depressed economy of Eastern Germany or in the high unemployment environment of Denmark. Dr. Wilfried Prewo, Chief Executive Officer of the Chamber of Industry and Commerce in Hannover—a respondent who is familiar with both Germany and America, having studied and worked in both countries—strongly advised us that at least at the beginning American companies starting training would need a "generous tax credit" to overcome the

"free rider" problem (a significant problem which occurs if only a few firms train and their completing trainees are snatched up by other firms). He recommended using the tax credit approach because he saw it as the least interventionist approach to subsidizing the training of apprentices.

The chief arguments against tax credits are that they are too expensive for the federal budget to bear at this time and that without an effective industry-governed system of quality control in place (such as found in Europe), tax credits will lead to fraud and abuse by some firms.

Ultimately, the costs of training can be born by only three parties—the government, the firm, or the individual trained (through a reduction in wages or payment of tuition). Currently, the debate over economic incentives revolves around whether or not the work experience needs to be on a paid basis. The move to have youth themselves bear the financial burden of their training may reflect the weakness of American unions and lack of worker voice in the system. Notably, not paying apprentices for work is simply not considered in Europe—for all the reasons that American advocates of paid work experience advance. Hilary Pennington, President of Jobs for the Future, summarized well the arguments for paid work in a recent issue of *Education Week:*

> "From the kid's point of view, many of them can't afford to do something like this unless they get paid. And, number two, it's a way of valuing them and their contribution to the workplace, which means it's taken seriously. On the employer's side, we feel it's important for there to be some pay for the same reason. It means that they're making an investment in a future worker rather than doing a favor for a kid. And it is our belief that they will design and manage a program differently if they pay for students (January 26, 1994, p. 24)."

There is an inherent conflict between our conviction that there will be no serious system for school-to-work transition without employer engagement, and our belief that employers in all industry sectors need to provide paid work experience to youth. Incentives of some form will be required, both to help defer the cost of wages, and to build the needed local industry-led institutions which will guarantee quality.

Selected large employers could lead the way. A few—e.g. Siemens of America, Motorola, American Airlines, large hospitals in Boston and Sacramento—have already stepped forward and made a commitment to quality, paid work experience for high school students. But the total numbers of students being served to date nationally is embarrassingly small. There is a role for federal leadership here—to encourage large companies with the resources to do so to create programs not for 15 or 20 youth apprentices, but for several hundred.

Finally, what about the public sector? Government is a huge employer, and in many rural communities the largest by far. Government agencies need quality entry level workers, and they too can invest in their training through new relationships with the high schools and community colleges.

Include Workers in the Process

In Europe, employers and labor unions comprise the key parties in governance, with educators often serving in a non-voting role. The worker contribution to the training process is critical and profound and includes the roles of both the primary trainers on the job and the learners themselves. European worker representatives provide an important check on the tendencies to train employees too narrowly or to overly specialize the training. Workers and their unions are concerned about developing broad training and building transferable skills that are truly portable. Workers also bring irreplaceable detailed knowledge of the jobs that is essential for designing appropriate training and improving it over time.

Worker organizations, i.e. unions and works councils, give voice to the fears and concerns of incumbent workers about the training of new workers. They surface concerns, bringing them into the open where they can be discussed and negotiated. Workers without an adequate voice in the training process may fail to cooperate in passing their skills to younger workers. This is especially common, for example, if incumbent workers feel insecure about maintaining their jobs or if they believe that the young trainees and new hires are receiving far better training opportunities than were available to them.

Only about 12 percent of America's private sector workforce is unionized and management in much of the rest of the economy has antagonistic attitudes toward unions. American labor-management relations are confrontative rather than collaborative. These factors complicate the task of including a worker voice in the process.

Certainly where unions exist, they need to be invited to become full participants in this process. But how can the input of workers be assured in the design and operation of school-to-work opportunities, especially in non-union environments? Can community organizations, such as those which comprise the large network of non-profits which provide training to the economically disadvantaged under JTPA, serve as a partial proxy for worker representation? Other ideas and approaches clearly are needed to build an effective worker voice into this system. The recently established Commission on the Future of Worker-Management Relations (Dunlop Commission) is currently deliberating this issue and other matters and may publish useful suggestions for resolving this problem in its recommendations report due to be published in December 1994.

The value of direct worker involvement in both policy formation and implementation of training processes in Europe cannot be questioned. Indeed, front line worker participation is the cornerstone of the total quality management movement in the U.S. Determining the best ways to include worker voices in industry sectors without trade unions will be one of great challenges in building new school-to-work systems here.

In short, it is time to step back from the current policy debate and think seriously about creating the social partnership among education and industry which we feel is the glue of the European systems. Gregory Anrig, former State Superintendent of Education in Massachusetts and President of the Education Testing Service, nearly always made a point in his talks with the community that "education is too important to leave solely in the hands of the educators."

This is doubly true when we focus on school-to-work transition. Without the social partners at the table at all levels, state, federal and local, the school-to-work movement will be educator-driven, market insensitive, and worst of all, not very engaging for the large proportion of youth who are bored in high school and who can see little relationship between what they do in school and the world outside.

APPENDIX

Study Team Members

The Governance and Finance team was headed by ***Dr. Robert W. (Bob) Glover***, a Research Scientist at the Center for the Study of Human Resources, Lyndon B. Johnson School of Public Affairs at The University of Texas at Austin. Dr. Glover has specialized in studies of various aspects of learning and work for more than two decades, especially on apprenticeship, school-to-work transition, and skill standards. He has contributed to several national and international studies, including *America's Choice: high skills or low wages!* (Commission on Skills of the American Workforce, 1990), *Worker Training: Competing in the New International Economy* (Office of Technology Assessment, U.S. Congress, 1990), and various reports of the U.S. General Accounting Office, including *Training Strategies: Preparing Non-college Youth for Employment in the U.S.* and *Transition from School to Work: Linking Education and Worksite Training* (August 1991). At the state level in Texas, he helped to write state legislation passed in 1993 on developing apprenticeships and career pathway programs for youth. He has served as a member of the Texas State Panel on Student Skills and Knowledge, the Texas Business and Education Coalition Task Force on School-to-Work Transition, and as a consultant to the Texas Department of Commerce and author of its publication, *Developing a System of Skill Standards for the State of Tex*as (January 1993). At the local level, working closely with the Greater Austin Chamber of Commerce, the Austin Independent School District, and the City of Austin, Dr. Glover is designing and implementing a system to improve school-to-work opportunities for youth in the Austin Area. In this connection, he co-authored a study entitled *Bridging the Gap: Implementing School-to-Working Transition in Austin, Texas* (April 1993).

Mr. Andrew M. Churchill heads the communications function at Jobs for the Future, a research and training firm which focuses on the connections between education and economic development. Jobs for the Future is a national leader in the development of youth apprenticeship programs and policies in the United States. As Director of Communications, Mr. Churchill is responsible for publicizing issues and practices important to Jobs for the Future's work among policy makers, practitioners, and the media. His work includes producing reports and videos, writing articles and speeches, and editing a national newsletter on school-to-work programs in the United States. Mr. Churchill previously worked at the U.S. Office of Management and Budget in Washington, D.C. and has also conducted field research on high school career academies for youth in Oakland, California.

Ms. Sharon Knotts Green, as Education Manager at Motorola, Inc., the largest private employer in Austin, supervises the company's numerous education programs in public schools as well as the activities of over 600 employee volunteers working in Austin area schools. She has served as a member of the Education Committee of the Greater Austin Chamber of Commerce and as chair of the Chamber's Committee on School-to-Work Transition. She also chairs the Mayor's Task Force on Apprenticeships and Career Pathway Programs for Austin

Youth, which has been charged by the Mayor of Austin with the responsibility of designing and initiating a system of apprenticeships and career pathways for Austin youth. Ms. Green holds a bachelor's degree in biology, a master's degree in electrical engineering, and is presently enrolled in a doctoral in Adult Education and Human Resource Development at the School of Education at The University of Texas at Austin, working on a dissertation which is a case study of the perceptions of managers, supervisors, and workers regarding youth in the work place.

Mr. Robert (Bob) McPherson, Senior Research Associate at the Center for the Study of Human Resources, has more than 20 years of experience in researching, designing, and implementing public employment and training programs. He has worked with state and local elected officials in Texas and Washington State, as well as for the National Governors Association, and the U.S. Department of Labor. For Texas Governor Mark White, Mr. McPherson served as special assistant for job training, state planning director, and deputy executive assistant for programs. Currently, Mr. McPherson is at the Lyndon B. Johnson School of Public Affairs, working on alternative approaches for integrating workforce development programs. Mr. McPherson was the chief architect of major legislation passed in Texas in Spring 1993 on workforce development. The legislation consolidates all state advisory bodies related to workforce development, encourages the integration of employment and training services, and fosters the development of local workforce development boards to administer programs at the local level across Texas.

Ms. Janet Lewis is an analyst and Customer Assurance Representative for Hewlett Packard Corporation, who among other tasks is responsible for implementing Total Quality Management (TQM) at her location. Appointed by the governor, she currently serves on the Private Industry Council and on the Oregon State Apprenticeship and Training Council. She has also served on the Association of Oregon Industries' Education Committee and the Portland Community College Advisory Committee for Management and Supervisory Development. In addition, she is assisting the School of Nursing at the University of Oregon to establish a TQM model training program.

Mr. Quint Rahberger is Director of Apprenticeship and Training for the State of Oregon, having accumulated more than 20 years experience in the private sector with the woodworking industry. He also serves as director of Oregon's youth apprenticeship project. Mr. Rahberger has experience at the local, state, national, and international levels. He is a board member of the National Association of State and Territorial Apprenticeship Directors (NASTAD) and is immediate past president of its National Apprenticeship Program. Mr. Rahberger has been a leading advocate of apprenticeships for youths, school reform, and improvements in school-to-work transition in Oregon.

Mr. Mark Scott is Associate Director for Policy and Programs for the Center for Learning and Competitiveness, based at the University of Maryland. A graduate of Sydney and Harvard Universities, he was formerly Chief of Staff to the Minister of Education, Employment and Training in New South Wales, Australia's largest state. In this capacity, he was actively involved in the development of policies to devolve the management of school education and

technical education to regional levels, to restructure the school curriculum, and to develop new systems for assessment and credentialing in revisions of education legislation. As Director of Communications for the Ministry of Education in New South Wales, he was responsible for communication strategy and policy in Australia's largest state government department.

Dr. F. Eugene (Gene) Scott is Director of Education and Organizational Development for Sutter Health Systems. Headquartered in Sacramento, Sutter Health is a not-for-profit diversified health care company with facilities and services throughout Northern California as well as locations in California's Central Valley and in Hawaii. Dr. Scott is responsible for providing non-clinical education and training programs to Sutter's 14,000 staff and management associates as well as internal organizational development consulting for its various companies and entities. Dr. Scott is spearheading a health care youth apprenticeship program at Sutter (one of four pilot programs in health care in California). He makes presentations frequently on health care work force trends and their educational implications. He has been a health care management consultant and educator for the past fifteen years, and has held positions with Mercy Healthcare and Kaiser Permanente. Dr. Scott, who has a doctorate from Purdue University, previously held a faculty appointment at the University of California, Davis and has served as an adjunct faculty member both in graduate programs for Health Care Administration and for Organizational Development at the University of San Francisco.

Dr. Alan Weisberg staffs the state steering committee as Director of the California State Youth Apprenticeship Project of Foothill Associates. He also works in the area of skill standards, with the National Skill Standards Project in the printing industry. He has combined experience as a researcher and practitioner, and has spent years working for various state agencies, with the aim of building inter-agency relationships among groups in the education and training field. As an independent consultant, he has worked for several California state agencies, Jobs for the Future and other national organizations, as well as an array of private foundations.

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